Reply to the Report of Reviewer

We thank the Reviewer for his comments which we have found very useful in improvement of the manuscript. Based on these comments, we have made careful modification on the original manuscript. All changes make to the file are in red color and underlined. The Reviewer's comments are point-by-point responded as below:

There is still one issue to be corrected. The transition was only tested in a back-to-back configuration with a fixed-length line in between. This is not a rigorous proof that your transition is well matched to the microstrip line. If the microstrip-line length is an integer multiple of half wavelengths, its characteristic impedance does not matter.A more rigorous experiment would include two different back-to-back configurations with two different-length microstrips. The difference in length as close to lambda/4 as possible. Are you able to do that? Maybe you already have similar data from measurements? This would give a much higher value to the whole article.

We just have similar data from measurements, so we added the sentence of"For rigorous verification of the well matched transition, we did further experiences. The experiments include two back-to-back configurations with two different-length microstrips. The lengths of microstrips in two back-to-back configurations are $\lambda/4+\mathrm{L}_{\mathrm{fix}}$ and $\lambda/2+\mathrm{L}_{\mathrm{fix}}$, respectively. The waveguide-to-microstrip transition with different length of microstrips are fabricated and assembled in a similar waveguide cavity. Figure 11 shows the measured results of the back to back transition structure with three different length of microstrip line ($\mathrm{L}_{\mathrm{fix}}$, $\lambda/4+\mathrm{L}_{\mathrm{fix}}$, $\lambda/2+\mathrm{L}_{\mathrm{fix}}$).The measured of insertion loss is lessthan 2 dB from 75GHz to 105GHz in all different length. The additional insertion lossof the measured data can be alsoattributed to the problems causedby the fabrication and assembly errors. The return loss is better than 11dBover the frequency range from 75 GHz to 105GHz, and is not about the length of microstrip line. These results certify that the proposed transition is well matched to the microstrip line."(line5 of page 8, in revised manuscript).

We added Figure11 of Measured results of the back to back transition structure with different length of microstrip line to proof that the transition is well matched to the microstrip line.(line 1 of page 9, in revised manuscript)

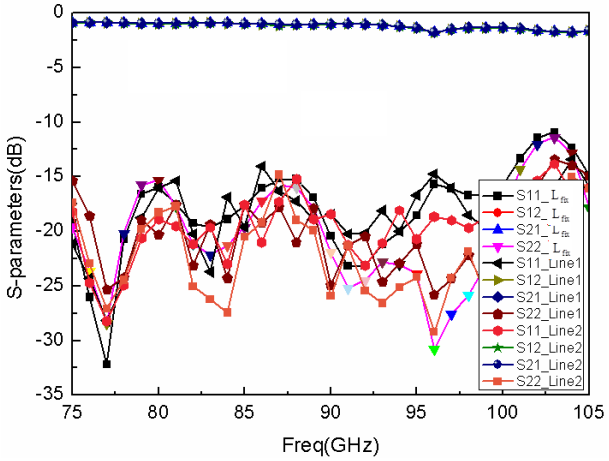

Figure 11. Measured results of the back to back transition structure with different length of microstrip line